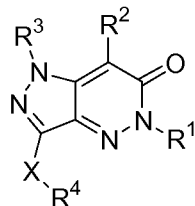


## AMENDMENTS TO THE CLAIMS

Please replace all prior versions and listings of claims with the amended claims as follows:

1. (Previously presented) A compound of formula I:



or a pharmaceutically acceptable salt or mixtures thereof,

wherein  $R^1$  is selected from  $-(L)_mR$ ,  $-(L)_mAr^1$ , or  $-(L)_mCy^1$ ; L is an optionally substituted  $C_{1-6}$  alkylidene chain wherein up to two non-adjacent methylene units of L are optionally replaced by O, NR, NRCO, NRCS, NRCONR, NRCSNR, NR $CO_2$ ,  $CO$ ,  $CO_2$ , CONR, CSNR, OC(O)NR,  $SO_2$ ,  $SO_2NR$ ,  $NRSO_2$ ,  $NRSO_2NR$ , C(O)C(O), or C(O)CH $_2$ C(O); m is 0 or 1;  $Ar^1$  is an optionally substituted aryl group selected from a 3-8 membered monocyclic or an 8-10 membered bicyclic ring having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur; and  $Cy^1$  is an optionally substituted group selected from a 3-7-membered saturated or partially unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or an 8-10-membered saturated or partially unsaturated bicyclic ring system having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur, wherein  $Ar^1$  and  $Cy^1$  are each independently optionally substituted with y occurrences of  $Z-R^Y$ ; wherein Z is a bond or is a  $C_1-C_6$  alkylidene chain wherein up to two non-adjacent methylene units of Z are optionally replaced by CO,  $CO_2$ , COCO, CONR, CSNR, OCONR, NRNR, NRNR $CO$ , NR $CO$ , NRCS, NR $CO_2$ , NRCONR, NRCSNR, SO,  $SO_2$ ,  $NRSO_2$ ,  $SO_2NR$ ,  $NRSO_2NR$ , O, S, or NR; each occurrence of  $R^Y$  is independently selected from  $R'$ , halogen,  $NO_2$ , CN,  $OR'$ ,  $SR'$ ,  $N(R')_2$ ,  $NR'C(O)R'$ ,  $NR'C(S)R'$ ,  $NR'C(O)N(R')_2$ ,  $NR'C(S)N(R')_2$ ,  $NR'CO_2R'$ , C(O) $R'$ ,  $CO_2R'$ , OC(O) $R'$ , C(O) $N(R')_2$ , C(S) $N(R')_2$ , OC(O) $N(R')_2$ ,  $SOR'$ ,  $SO_2R'$ ,  $SO_2N(R')_2$ ,  $NR'SO_2R'$ ,  $NR'SO_2N(R')_2$ , C(O)C(O) $R'$ , or C(O)CH $_2$ C(O) $R'$ ; and y is 0-5;

$R^2$  is selected from halogen,  $NO_2$ ,  $-SR$ ,  $-N(R)_2$ ,  $-(T)_nR$ , or  $-(T)_nAr^2$  wherein T is an optionally substituted  $C_{1-4}$  alkylidene chain wherein up to two non-adjacent methylene units of T are optionally replaced by O, NR, NRCO, NRCS, NRCONR, NRCSNR, NRCO<sub>2</sub>, CO, CO<sub>2</sub>, CONR, CSNR, OC(O)NR, SO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>, NRSO<sub>2</sub>NR, C(O)C(O), or C(O)CH<sub>2</sub>C(O); n is 0 or 1;  $Ar^2$  is an optionally substituted aryl group selected from a 5-6 membered monocyclic or an 8-10 membered bicyclic ring having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur wherein  $Ar^2$  is independently optionally substituted with up to five substituents selected from  $Q-R^X$ ; wherein Q is a bond or is a  $C_1-C_6$  alkylidene chain wherein up to two non-adjacent methylene units of Q are optionally replaced by CO, CO<sub>2</sub>, COCO, CONR, CSNR, OCONR, NRNR, NRNRCO, NRCO, NRCS, NRCO<sub>2</sub>, NRCONR, NRCSNR, SO, SO<sub>2</sub>, NRSO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>NR, O, S, or NR; and each occurrence of  $R^X$  is independently selected from  $R'$ , halogen,  $NO_2$ , CN,  $OR'$ ,  $SR'$ ,  $N(R')_2$ ,  $NR'C(O)R'$ ,  $NR'C(S)R'$ ,  $NR'C(O)N(R')_2$ ,  $NR'C(S)N(R')_2$ ,  $NR'CO_2R'$ ,  $C(O)R'$ ,  $CO_2R'$ ,  $OC(O)R'$ ,  $C(O)N(R')_2$ ,  $C(S)N(R')_2$ ,  $OC(O)N(R')_2$ ,  $SOR'$ ,  $SO_2R'$ ,  $SO_2N(R')_2$ ,  $NR'SO_2R'$ ,  $NR'SO_2N(R')_2$ ,  $C(O)C(O)R'$ , or  $C(O)CH_2C(O)R'$ ;

$R^3$  is hydrogen or an optionally substituted  $C_{1-4}$  aliphatic group;

X is selected from a valence bond, O, S, or NR;

$R^4$  is selected from  $-R$ ,  $-U-Ar^3$ , or  $-(U)_jCy^3$ ; U is an optionally substituted  $C_{1-6}$  alkylidene chain wherein up to two non-adjacent methylene units of U are optionally replaced by O, NR, NRCO, NRCS, NRCONR, NRCSNR, NRCO<sub>2</sub>, CO, CO<sub>2</sub>, CONR, CSNR, OC(O)NR, SO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>, NRSO<sub>2</sub>NR, C(O)C(O), or C(O)CH<sub>2</sub>C(O); j is 0 or 1;  $Ar^3$  is an optionally substituted aryl group selected from a 3-8 membered monocyclic or an 8-10 membered bicyclic ring having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur; and  $Cy^3$  is an optionally substituted group selected from a 3-7-membered saturated or partially unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or an 8-10-membered saturated or partially unsaturated bicyclic ring system having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur, wherein  $Ar^3$  and  $Cy^3$  are each independently optionally substituted with up to five substituents selected from  $Y-R^Z$ ; wherein Y is a bond or is a  $C_1-C_6$  alkylidene chain wherein up to two non-adjacent

methylene units of Y are optionally replaced by CO, CO<sub>2</sub>, COCO, CONR, CSNR, OCONR, NRNR, NRNRCO, NRCO, NRCS, NRCO<sub>2</sub>, NRCONR, NRCSNR, SO, SO<sub>2</sub>, NRSO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>NR, O, S, or NR; and each occurrence of R<sup>Z</sup> is independently selected from R', halogen, NO<sub>2</sub>, CN, OR', SR', N(R')<sub>2</sub>, NR'C(O)R', NR'C(S)R', NR'C(O)N(R')<sub>2</sub>, NR'C(S)N(R')<sub>2</sub>, NR'CO<sub>2</sub>R', C(O)R', CO<sub>2</sub>R', OC(O)R', C(O)N(R')<sub>2</sub>, C(S)N(R')<sub>2</sub>, OC(O)N(R')<sub>2</sub>, SOR', SO<sub>2</sub>R', SO<sub>2</sub>N(R')<sub>2</sub>, NR'SO<sub>2</sub>R', NR'SO<sub>2</sub>N(R')<sub>2</sub>, C(O)C(O)R', or C(O)CH<sub>2</sub>C(O)R'; or

wherein R<sup>4</sup> and R, taken together with the nitrogen form an optionally substituted 5-8 membered heterocyclyl ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

each occurrence of R is independently selected from hydrogen or an optionally substituted C<sub>1-6</sub> aliphatic group, or two R on the same nitrogen are taken together with the nitrogen to form a 5-8 membered heterocyclyl or heteroaryl ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur; and

each occurrence of R' is independently selected from hydrogen or an optionally substituted group selected from C<sub>1-6</sub> aliphatic, C<sub>6-10</sub> aryl, a heteroaryl ring having 5-10 ring atoms, or a heterocyclyl ring having 3-10 ring atoms, or wherein two R on the same nitrogen are taken together with the nitrogen to form a 5-8 membered heterocyclyl or heteroaryl ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur,

provided that:

a) when X is NR; R, R<sup>3</sup>, and R<sup>4</sup> are each hydrogen; R<sup>2</sup> is -(T)<sub>n</sub>R wherein n is 0 and R is hydrogen; and R<sup>1</sup> is -(L)<sub>m</sub>Ar<sup>1</sup> wherein m is 0; then Ar<sup>1</sup> is not:

i) 4-Cl or 4-OMe phenyl; or

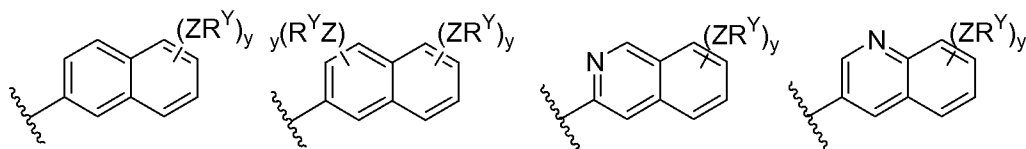
ii) 3-CF<sub>3</sub> phenyl;

d) when X is a valence bond; R<sup>4</sup> is hydrogen; R<sup>3</sup> is CH<sub>3</sub>; R<sup>2</sup> is either chloro or hydrogen; and R<sup>1</sup> is -(L)<sub>m</sub>Ar<sup>1</sup> wherein m is 0, then Ar<sup>1</sup> is not 3-trifluoromethyl phenyl or 2-fluoro-5-trifluoromethyl phenyl;

f) when X is a valence bond; R<sup>4</sup> is methyl; R<sup>2</sup> is -(T)<sub>n</sub>R wherein n is 0 and R is hydrogen; R<sup>3</sup> is hydrogen; and R<sup>1</sup> is -(L)<sub>m</sub>Ar<sup>1</sup> wherein m is 0; then Ar<sup>1</sup> is not 4-tolyl;

g) 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[4-[1,6-dihydro-3-methyl-7-(4-nitrophenoxy)-6-oxo-5H-pyrazolo[4,3-c]pyridazin-5-yl]phenyl]-butanamide is excluded.

2. (Previously presented) The compound according to claim 1, wherein  $R^1$  is  $-(L)_mAr^1$  and  $Ar^1$  is selected from one of the following groups:

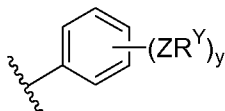


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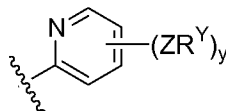
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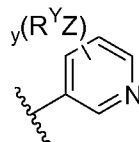
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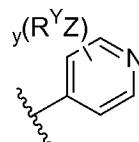
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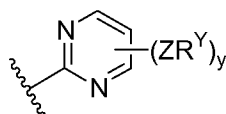
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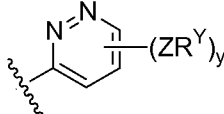
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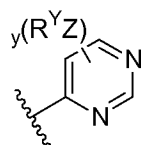
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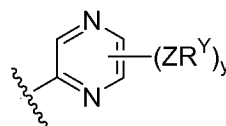
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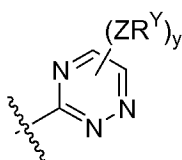
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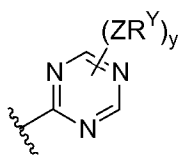
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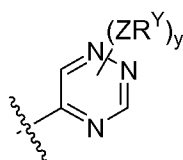
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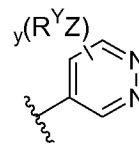
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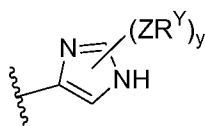
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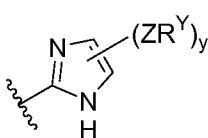
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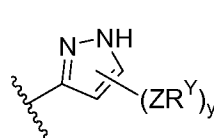
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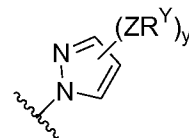
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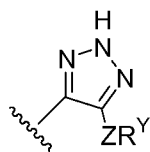
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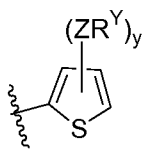
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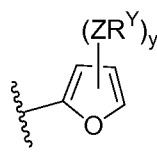
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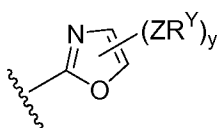
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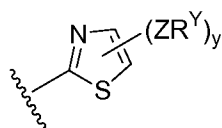
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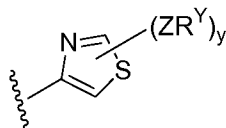
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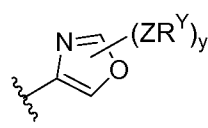
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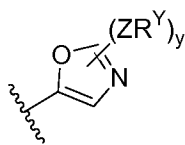
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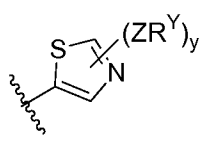
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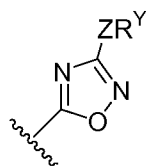
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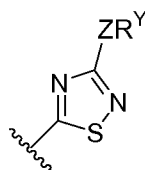
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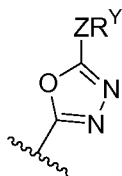
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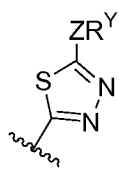
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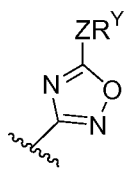
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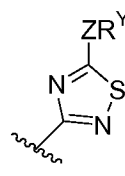
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**1-34,**

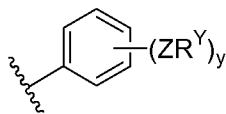


**1-35, and**

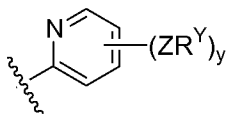


**1-36 .**

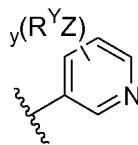
3. (Previously presented) The compound according to claim 2, wherein Ar<sup>1</sup> is selected from one of the following groups:



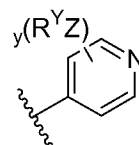
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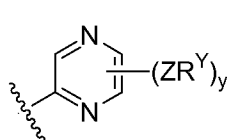
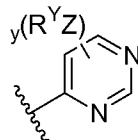
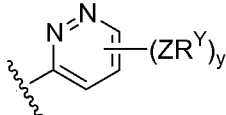
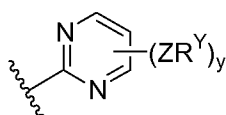
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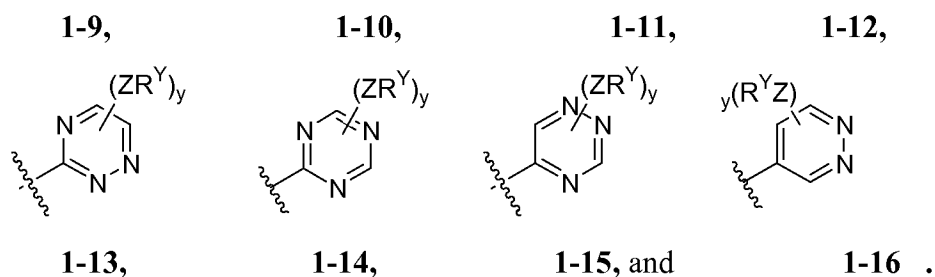


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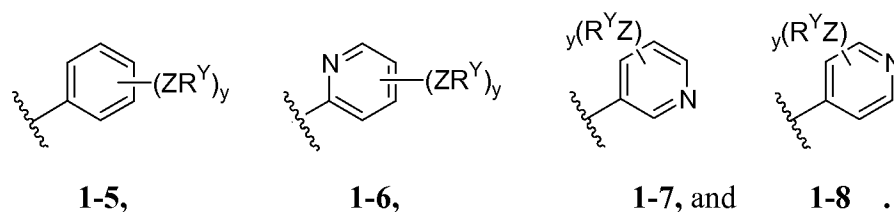


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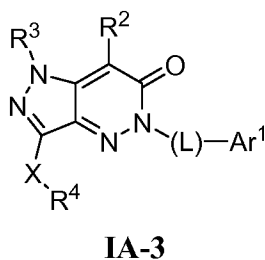




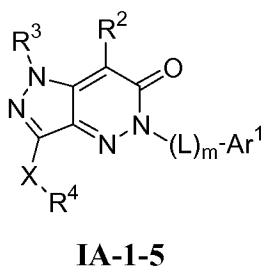
4. (Previously presented) The compound according to claim 3, wherein  $\text{Ar}^1$  is selected from one of the following groups:



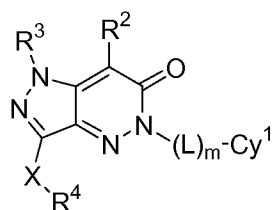
5. (Original) The compound according to claim 2, wherein  $\text{R}^1$  is  $-(\text{L})_m-\text{Ar}^1$ ,  $m$  is 1 and compounds have the formula **IA-3**:



6. (Original) The compound according to claim 2, wherein  $\text{Ar}^1$  is phenyl with 0-5 occurrences of  $\text{ZR}^Y$  and compounds have the formula **IA-1-5**:

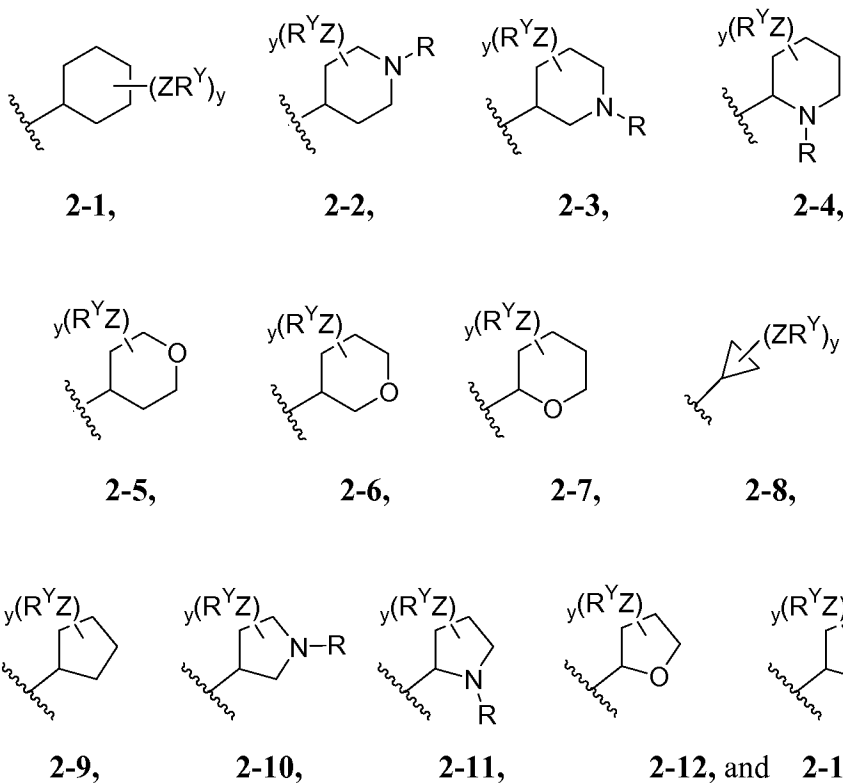


7. (Original) The compound according to claim 1, wherein  $\text{R}^1$  is  $-(\text{L})_m-\text{Cy}^1$  and compounds have the formula **IA-2**:



**IA-2**

8. (Previously presented) The compound according to claim 7, wherein Cy<sup>1</sup> is selected from one of the following groups:



9. (Original) The compound according to claim 2, wherein L is an optionally substituted C<sub>1-6</sub> straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCS, NRCONR, NRCSNR, NRCO<sub>2</sub>, CO, CO<sub>2</sub>, CONR, CSNR, OC(O)NR, SO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>, NRSO<sub>2</sub>NR, C(O)C(O), or C(O)CH<sub>2</sub>C(O) and m is 1.

10. (Original) The compound according to claim 9, wherein L is an optionally substituted C<sub>1-6</sub> straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by CO, CO<sub>2</sub>, CONR, CSNR, SO<sub>2</sub>NR, and m is 1.

11. (Original) The compound according to claim 1, wherein R<sup>1</sup> is -(L)<sub>m</sub>R, L is an optionally substituted C<sub>1-6</sub> straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCS, NRCONR, NRCSNR, NRCO<sub>2</sub>, CO, CO<sub>2</sub>, CONR, CSNR, OC(O)NR, SO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>, NRSO<sub>2</sub>NR, C(O)C(O), or C(O)CH<sub>2</sub>C(O), R is an optionally substituted C<sub>1-6</sub> aliphatic group and m is 1.

12. (Original) The compound according to claim 1, wherein R<sup>2</sup> is selected from halogen, NO<sub>2</sub>, CN, -SR, -N(R)<sub>2</sub>, or -(T)<sub>n</sub>R, wherein R is selected from hydrogen or an optionally substituted C<sub>1-6</sub> aliphatic group, or two R on the same nitrogen are taken together with the nitrogen to form a 5-8 membered heterocyclyl or heteroaryl ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur.

13. (Original) The compound according to claim 12, wherein R<sup>2</sup> is selected from -N(R)<sub>2</sub>, or -(T)<sub>n</sub>R, wherein n is 0, and R is selected from hydrogen or an optionally substituted C<sub>1-6</sub> aliphatic group.

14. (Original) The compound according to claim 13, wherein R<sup>2</sup> is -(T)<sub>n</sub>R, wherein n is 0, and R is selected from hydrogen, CH<sub>3</sub>, or CF<sub>3</sub>.

15. (Original) The compound according to claim 1, wherein R<sup>2</sup> is -(T)<sub>n</sub>R, wherein n is 0, R is hydrogen, and compounds have the formula **IB**:



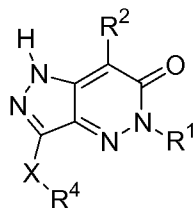
**IB**



16. (Original) The compound according to claim 1, wherein R<sup>3</sup> is hydrogen, methyl, ethyl, propyl, or isopropyl.

17. (Original) The compound according to claim 16, wherein R<sup>3</sup> is hydrogen or methyl.

18. (Original) The compound according to claim 1, wherein R<sup>3</sup> is hydrogen and compounds have the formula **IC**:

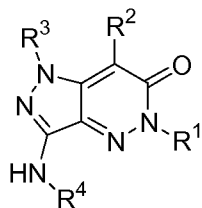


**IC**

19. (Original) The compound according to claim 1, wherein X is selected from a valence bond or NR.

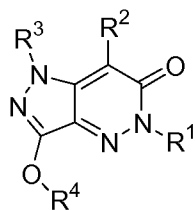
20. (Original) The compound according to claim 19, wherein X is NR and R is hydrogen.

21. (Original) The compound according to claim 1, wherein X is NR, R is hydrogen, and compounds have the formula **ID**:



**ID**

22. (Previously presented) The compound according to claim 1, wherein X is O and compounds have the formula **IE**:



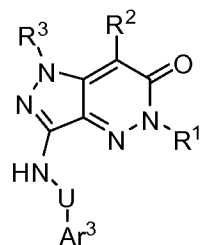
**IE**

23. (Previously presented) The compound according to claim 1, wherein X is S and compounds have the formula **IF**:



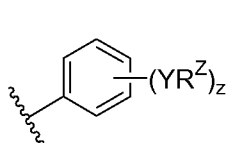
**IF**

24. (Previously presented) The compound according to claim 1, wherein X is NR, R is hydrogen, R<sup>4</sup> is -U-Ar<sup>3</sup> and compounds have the formula **IG**:

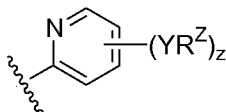


**IG**

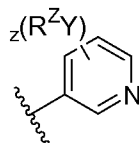
25. (Previously presented) The compound according to claim 1, wherein R<sup>4</sup> is -U-Ar<sup>3</sup> and Ar<sup>3</sup> is selected from one of the following groups:



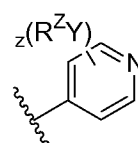
**1-5-a,**



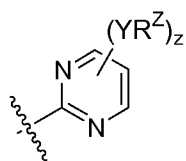
**1-6-a,**



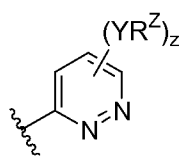
**1-7-a,**



**1-8-a,**



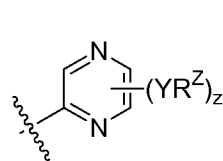
**1-9-a,**



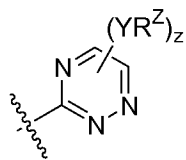
**1-10-a,**



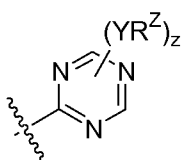
**1-11-a,**



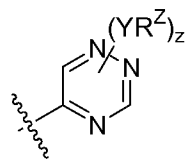
**1-12-a,**



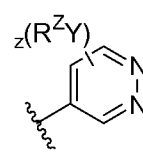
**1-13-a,**



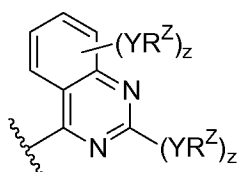
**1-14-a,**



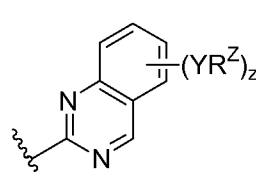
**1-15-a,**



**1-16-a,**

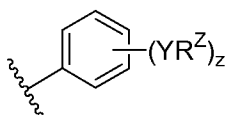


**1-37, and**

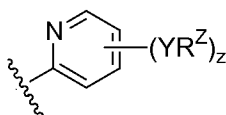


**1-38.**

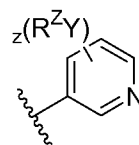
26. (Previously presented) The compound according to claim 25, wherein Ar<sup>3</sup> is selected from one of the following groups:



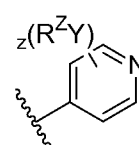
**1-5-a,**



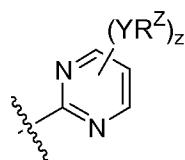
**1-6-a,**



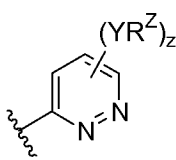
**1-7-a,**



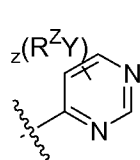
**1-8-a,**



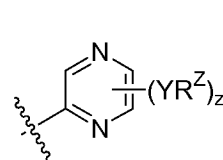
**1-9-a,**



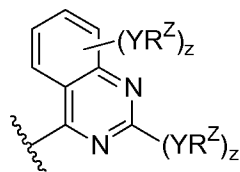
**1-10-a,**



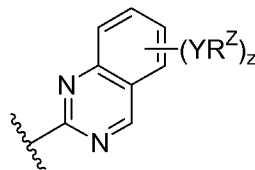
**1-11-a,**



**1-12-a,**

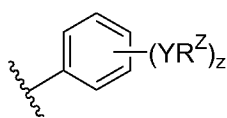


**1-37, and**

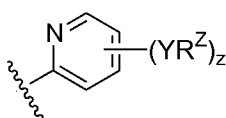


**1-38**

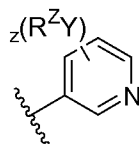
27. (Previously presented) The compound according to claim 26, wherein Ar<sup>3</sup> is selected from one of the following groups:



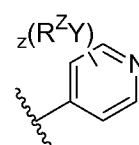
**1-5-a,**



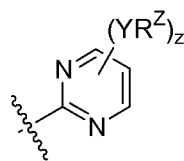
**1-6-a,**



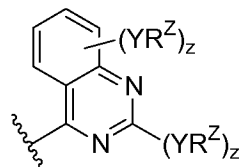
**1-7-a,**



**1-8-a,**

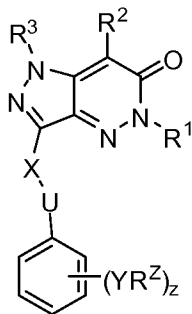


**1-9-a, and**

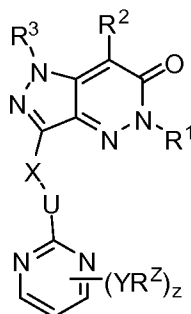


**1-37**

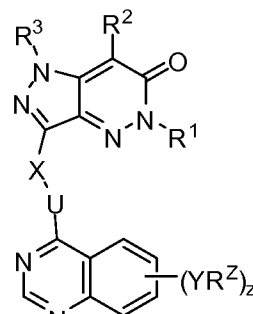
28. (Previously presented) The compound according to claim 1, wherein R<sup>4</sup> is -U-Ar<sup>3</sup> and compounds have one of the following formulas:



**IE,**

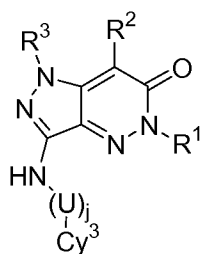


**IF, and**



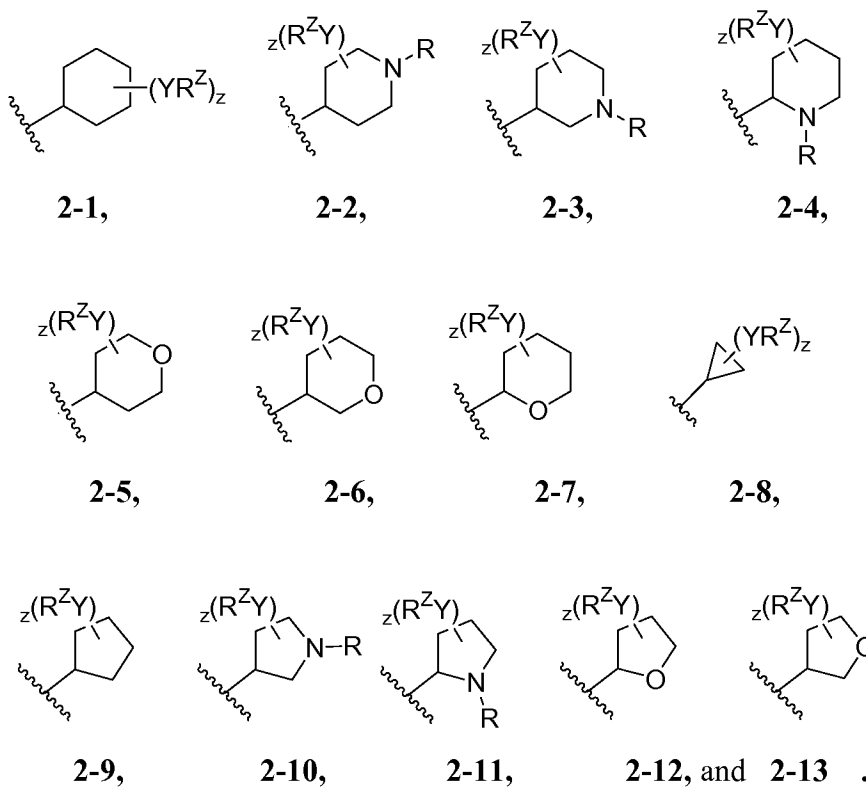
**IG**

29. (Original) The compound according to claim 1, wherein X is NR, R is hydrogen, R<sup>4</sup> is -(U)<sub>j</sub>Cy<sup>3</sup> and compounds have the formula **IG-1**:

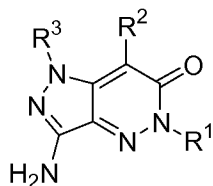


**IG-1** .

30. (Previously presented) The compound according to claim 29, wherein  $Cy^3$  is selected from one of the following groups:

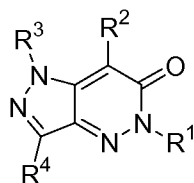


31. (Original) The compound according to claim 1, wherein X is NR, R and  $R^4$  are hydrogen, and compounds have the formula **II**:



**II** .

32. (Original) The compound according to claim 1, wherein X is a valence bond and compounds have the formula **IM**:



**IM**

33. (Original) The compound according to claim 1, wherein  $R^4$  is R and R is an optionally substituted  $C_{1-6}$  aliphatic group.

34. (Original) The compound according to claim 1, wherein y is 0-5, and  $Ar^1$  and  $Cy^1$  are independently substituted with 0-5 occurrences of  $ZR^Y$ .

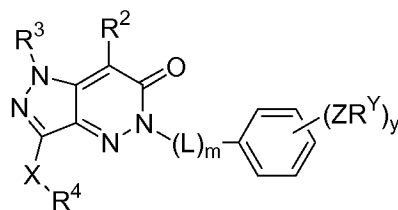
35. (Original) The compound according to claim 1, wherein y is 0-5, and  $Ar^3$  and  $Cy^3$  are independently substituted with 0-5 occurrences of  $YR^Z$ .

36. (Original) The compound according to claim 1, wherein y is 0, and  $Ar^1$  is unsubstituted.

37. (Original) The compound according to claim 1, wherein  $ZR^Y$  and  $YR^Z$  groups are each independently halogen,  $NO_2$ , CN, or an optionally substituted group selected from  $C_{1-4}$  aliphatic, aryl, aralkyl,  $-N(R')_2$ ,  $-CH_2N(R')_2$ ,  $-OR'$ ,  $-CH_2OR'$ ,  $-SR'$ ,  $-CH_2SR'$ ,  $-COOR'$ , or  $-S(O)_2N(R')_2$ .

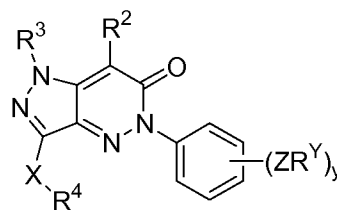
38. (Original) The compound of claim 30, wherein  $ZR^Y$  and  $YR^Z$  groups are each independently Cl,  $CF_3$ ,  $NO_2$ ,  $-S(O)_2N(R')_2$  or an optionally substituted group selected from  $C_{1-4}$  alkoxy, phenyl, phenyloxy, benzyl, or benzyloxy.

39. (Previously presented) The compound according to claim 1, wherein  $R^1$  is  $-(L)_mAr^1$ ,  $m$  is 0 or 1,  $Ar^1$  is phenyl optionally substituted with 0-5 occurrences of  $ZR^Y$ , and compounds have one of the following formulas **IIA** or **IIA-1**:



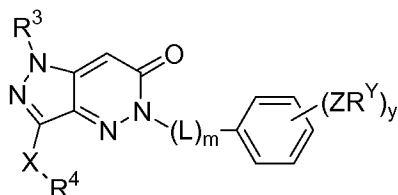
**IIA**

and



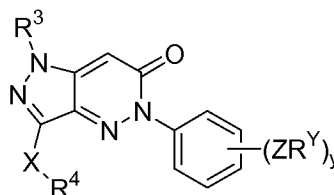
**IIA-1**

40. (Previously presented) The compound according to claim 1, wherein  $R^2$  is  $-(T)_nR$ , wherein  $n$  is 0 and  $R$  is hydrogen,  $R^1$  is  $-(L)_mAr^1$ , wherein  $m$  is 0 or 1,  $Ar^1$  is phenyl optionally substituted with 0-3 occurrences of  $ZR^Y$ , and compounds have one of the following formulas **IIB** or **IIB-1**:



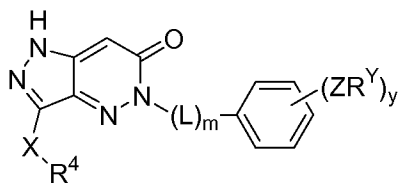
**IIB**

and



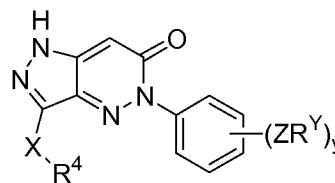
**IIB-1**

41. (Previously presented) The compound according to claim 1, wherein  $R^2$  is  $-(T)_nR$ , wherein  $n$  is 0 and  $R$  is hydrogen,  $R^3$  is hydrogen,  $R^1$  is  $-(L)_mAr^1$  wherein  $m$  is 0 or 1,  $Ar^1$  is phenyl optionally substituted with 0-5 occurrences of  $ZR^Y$ , and compounds have one of the following formulas **IIC** or **IIC-1**:



**IIC**

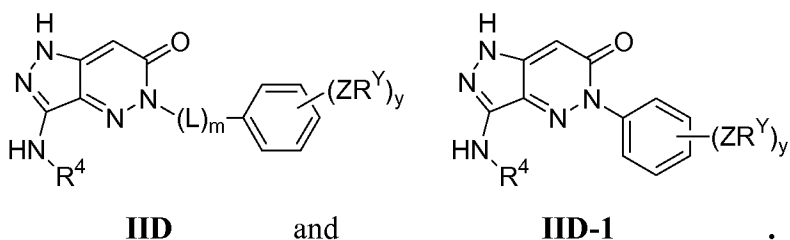
and



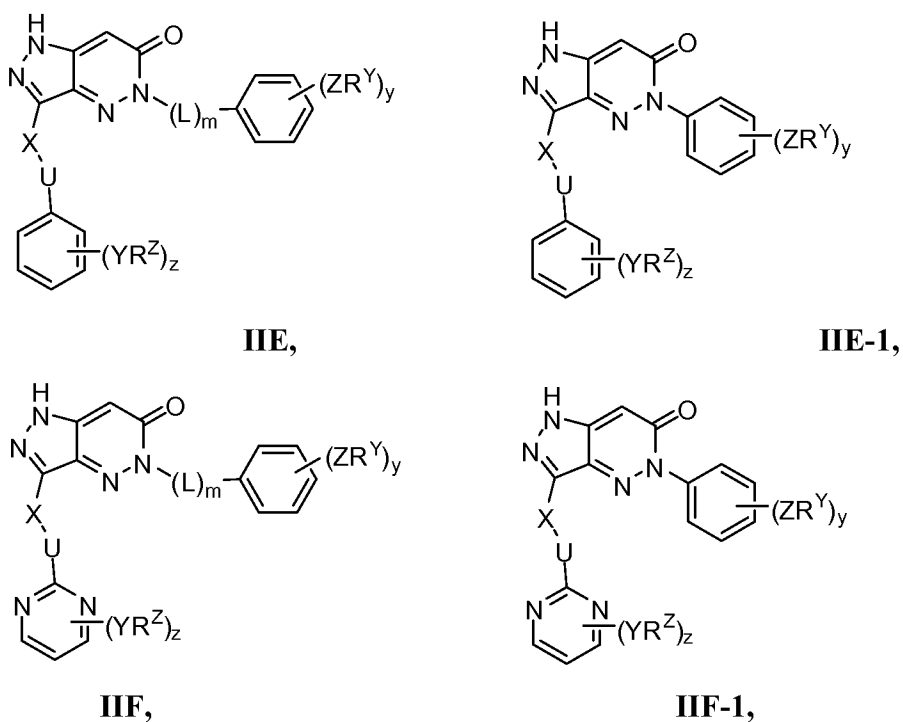
**IIC-1**

42. (Previously presented) The compound according to claim 1, wherein  $R^3$  is hydrogen,  $R^2$  is  $-(T)_nR$ , wherein  $n$  is 0 and  $R$  is hydrogen,  $X$  is  $NR$ ,  $R^1$  is  $-(L)_mAr^1$

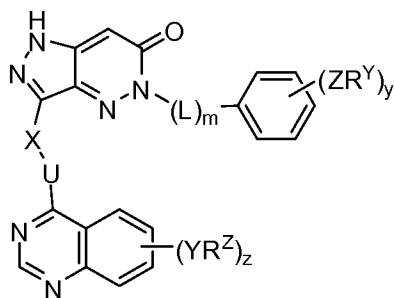
wherein m is 0 or 1, Ar<sup>1</sup> is phenyl optionally substituted with 0-5 occurrences of ZR<sup>Y</sup>, and compounds have one of the following formulas **IID** or **IID-1**:



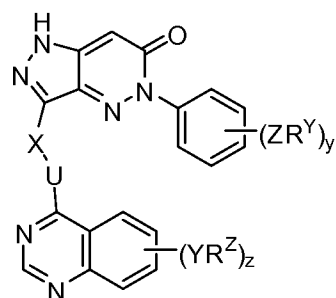
43. (Previously presented) The compound according to claim 1, wherein R<sup>3</sup> is hydrogen, R<sup>2</sup> is -(T)<sub>n</sub>R, wherein n is 0 and R is hydrogen, R<sup>1</sup> is -(L)<sub>m</sub>Ar<sup>1</sup> wherein m is 0 or 1, Ar<sup>1</sup> is phenyl optionally substituted with 0-5 occurrences of ZR<sup>Y</sup>, and compounds have one of the following formulas **II**E, **II**E-1, **II**F, **II**F-1, **II**G, or **II**G-1:





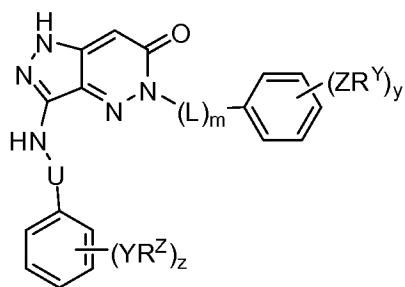


**II G,** and

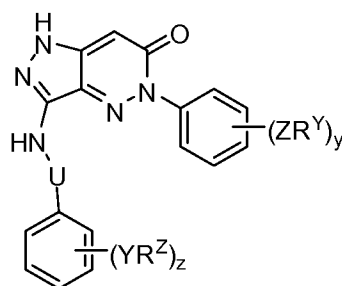


**II G-1.**

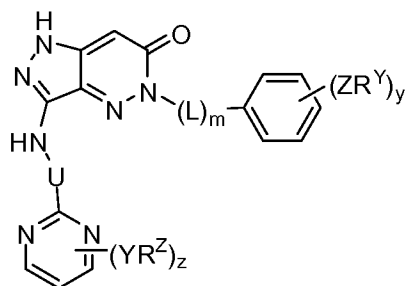
44. (Previously presented) The compound according to claim 1, wherein  $R^3$  is hydrogen,  $R^2$  is  $-(T)_nR$ , wherein  $n$  is 0 and  $R$  is hydrogen,  $X$  is  $NH$ ,  $R^1$  is  $-(L)_mAr^1$  wherein  $m$  is 0 or 1,  $Ar^1$  is phenyl optionally substituted with 0-5 occurrences of  $ZR^Y$ , and compounds have one of the following formulas **III E**, **III E-1**, **III F**, **III F-1**, **III G**, or **III G-1**:



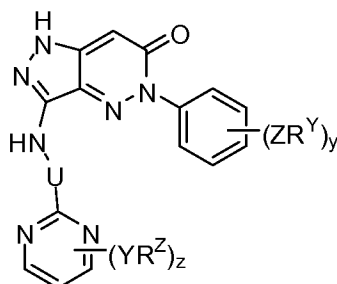
**III E,**



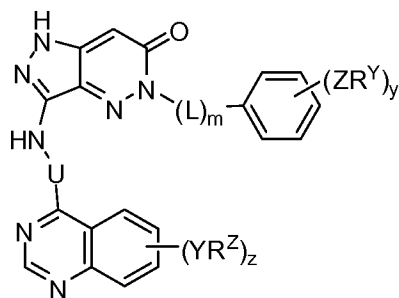
**III E-1,**



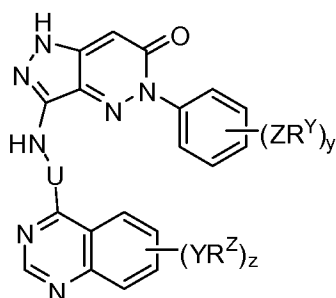
**III F,**



**III F-1,**

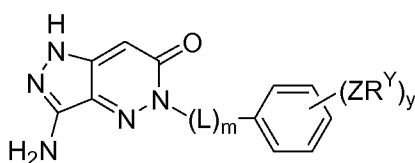


**III G,** and



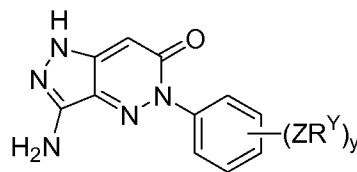
**III G-1.**

45. (Previously presented) The compound according to claim 1, wherein  $R^3$  and  $R^4$  are hydrogen, wherein  $R^2$  is  $-(T)_nR$ , wherein  $n$  is 0 and  $R$  is hydrogen,  $X$  is  $NR$ ,  $Ar^1$  is optionally substituted phenyl,  $R^1$  is  $-(L)_mAr^1$ , and compounds have one of the following formulas **III H** or **III H-1**:



**III H**

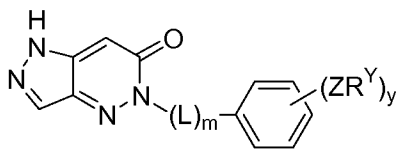
and



**III H-1**

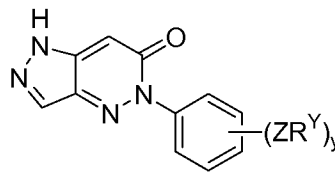
.

46. (Previously presented) The compound according to claim 1, wherein  $R^3$  and  $R^4$  are hydrogen, wherein  $R^2$  is  $-(T)_nR$ , wherein  $n$  is 0 and  $R$  is hydrogen,  $X$  is a valence bond,  $Ar^1$  is optionally substituted phenyl,  $R^1$  is  $-(L)_mAr^1$ , and compounds have one of the following formulas **III J** or **III J-1**:



**III J**

and



**III J-1**

.

47. (Original) The compound according to any one of claims 39-46, wherein  $Ar^1$  is phenyl optionally substituted with 0-5 occurrences of  $ZR^Y$  or wherein  $Ar^1$  is pyridyl optionally substituted with 0-3 occurrences of  $ZR^Y$ .

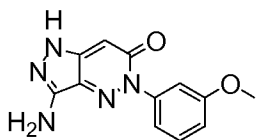
48. (Original) The compound according to claim 47, wherein m is 0 or m is 1 and L is CH<sub>2</sub>; y is 0-3; and each occurrence of ZR<sup>Y</sup> is independently halogen, NO<sub>2</sub>, CN, or an optionally substituted group selected from C<sub>1-4</sub> aliphatic, aryl, aralkyl, -N(R')<sub>2</sub>, -CH<sub>2</sub>N(R')<sub>2</sub>, -OR', -CH<sub>2</sub>OR', -SR', -CH<sub>2</sub>SR', -COOR', or -S(O)<sub>2</sub>N(R')<sub>2</sub>.

49. (Original) The compound according to claim 48, wherein each occurrence of ZR<sup>Y</sup> is independently Cl, CF<sub>3</sub>, NO<sub>2</sub>, -S(O)<sub>2</sub>N(R')<sub>2</sub> or an optionally substituted group selected from C<sub>1-4</sub> alkoxy, phenyl, phenyloxy, benzyl, or benzyloxy.

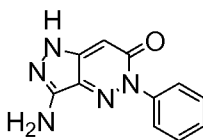
50. (Original) The compound according to any one of claims 24-28, wherein Ar<sup>3</sup> is phenyl or quinazolyl optionally substituted with 0-5 occurrences of YR<sup>Z</sup> or wherein Ar<sup>3</sup> is pyridyl or pyrimidinyl optionally substituted with 0-3 occurrences of YR<sup>Z</sup>.

51. (Previously presented) The compound according to claim 50, wherein U is CH<sub>2</sub>; X is NH; m is 0 or 1 and L is CH<sub>2</sub>; y is 0-3; and each occurrence of YR<sup>Z</sup> are each independently halogen, NO<sub>2</sub>, CN, or an optionally substituted group selected from C<sub>1-4</sub> alkyl, aryl, aralkyl, -N(R')<sub>2</sub>, -CH<sub>2</sub>N(R')<sub>2</sub>, -OR', -CH<sub>2</sub>OR', -SR', -CH<sub>2</sub>SR', -COOR', or -S(O)<sub>2</sub>N(R')<sub>2</sub>.

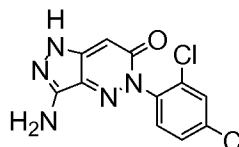
52. (Previously presented) The compound according to claim 1, selected from one of the following compounds:



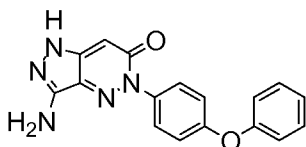
**I-1,**



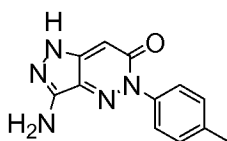
**I-2,**



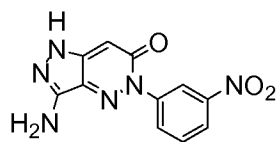
**I-3,**



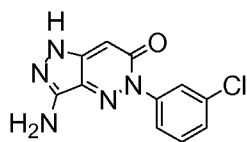
**I-4,**



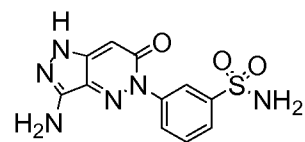
**I-5,**



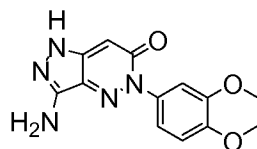
**I-7,**



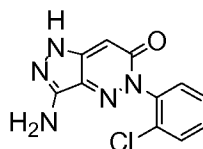
**I-8,**



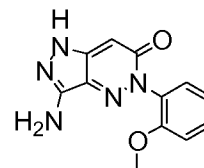
**I-9,**



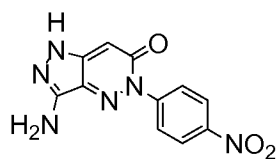
**I-10,**



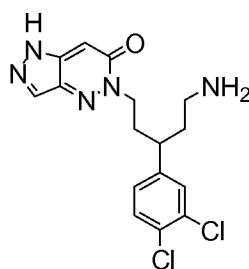
**I-15,**



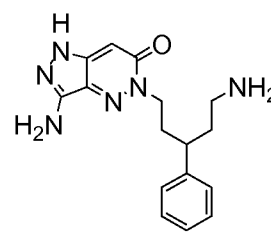
**I-16,**



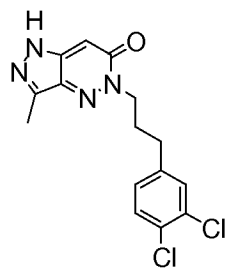
**I-18,**



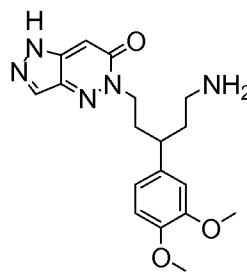
**I-19,**



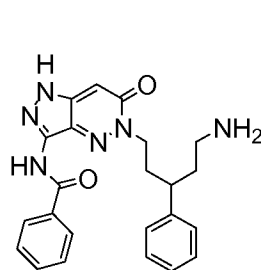
**I-20,**



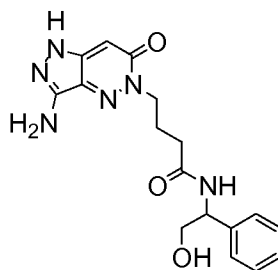
**I-21,**



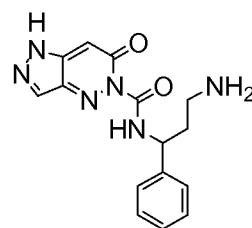
**I-22,**



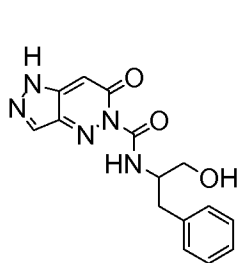
**I-25,**



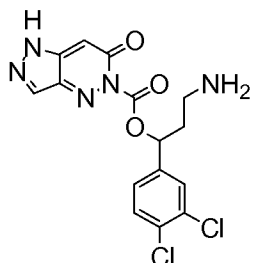
**I-26,**



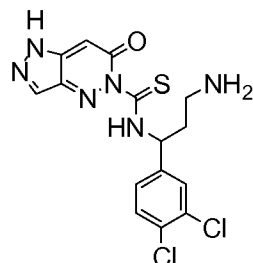
**I-27,**



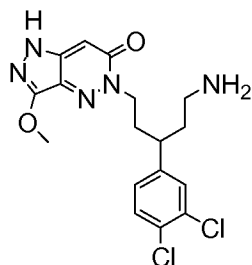
**I-28,**



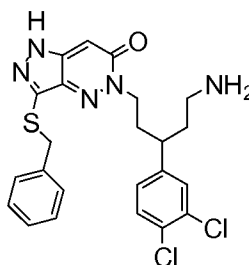
**I-29,**



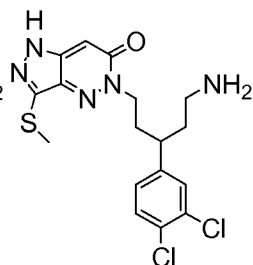
**I-30,**



**I-32,**



**I-33, and**



**I-35.**

53. (Original) A pharmaceutically acceptable composition comprising a compound according to claim 1, and a pharmaceutically acceptable carrier, adjuvant, or vehicle.

54-63. (Canceled)